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CITRUS

TREES

U. S. Department of Agriculture



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San Dimas Nurseries
San Dimas, Cal.

BUREAU OF PLANT INDUSTRY
FIELD INVESTIGATIONS IN POMOLOGY

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WASHINGTON, D. C.

San Dimas Citrus Nurseries

Telephone: Suburban 686

R. M. TEAGUE

PROPRIETOR

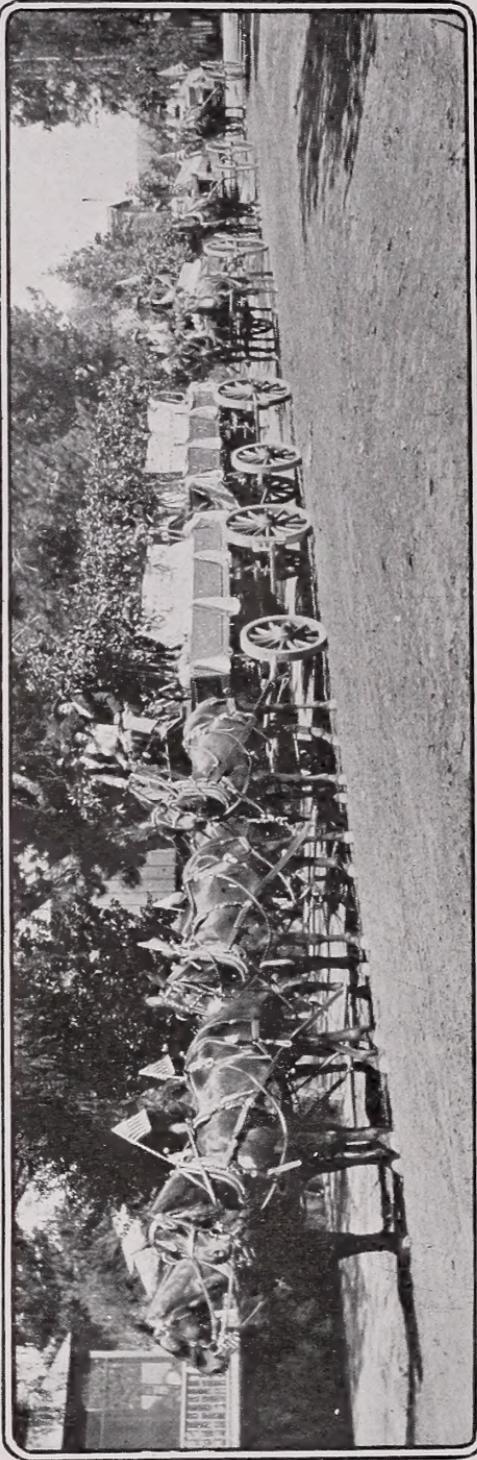
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"These trees shall be my books
And in their barks my thoughts I'll character."

— As You Like It. iii, 3.



SAN DIMAS
LOS ANGELES COUNTY
CALIFORNIA



TRANSPORTING BALLED TREES FROM NURSERY TO ORCHARD — A FREQUENT OCCURRENCE
AT THE SAN DIMAS NURSERIES.

RETROSPECTIVE

AND

PROSPECTIVE



THE RECORD of the past is the best promise for the future. It is now some eleven years ago that we settled in the San Gabriel Valley and established what have since become the largest nurseries in the world devoted to the one great specialty of producing only citrus trees of the highest quality and true to name. Taking its inception in a small way the business has grown and developed along lines which have given it a reputation and a standing not only in California, but in Mexico, the South American States, and the remaining portions of the United States wherever citrus fruits are produced in commercial quantities. During all these years it is pleasant to state that our trees and manner of doing business have been commended by customers and planters everywhere. The record of the past is indeed the best promise we have to offer for the future.

The contents of this catalogue will be found reliable and to the point in every detail. We have been especially careful and conservative in our descriptions of varieties, aiming to be plain, concise, and to the point. The numerous half-tones, showing orchards planted to our trees, are direct from photographs, hence true to nature. Of themselves, they form a splendid object lesson in the growth and care of a citrus orchard, and also show that our trees are properly grown in the nurseries to produce best results when submitted to the test of orchard growth. The text which accompanies the illustrations—the instructions on planting, care, etc.,—will be found of value to intending planters and give the best thought and practice by the most successful growers.

Long experience has shown us the urgency of keeping our varieties *true to name*, and hence we are at all times anxious and willing to replace, on good and sufficient evidence, all trees that may prove otherwise; nevertheless, it is mutually understood and agreed between purchasers and ourselves that we shall not at any time be liable for any amount greater or in excess of the original price of the stock at date of sale. Certain it is, the class of trees we produce are good growers and good sellers. Where one order goes, others are sure to follow. Our stock recommends and advertises itself at sight.

If this catalogue does not interest you, kindly hand it to a friend who would appreciate it; or, if you wish more catalogues, we will gladly send them free to any address.

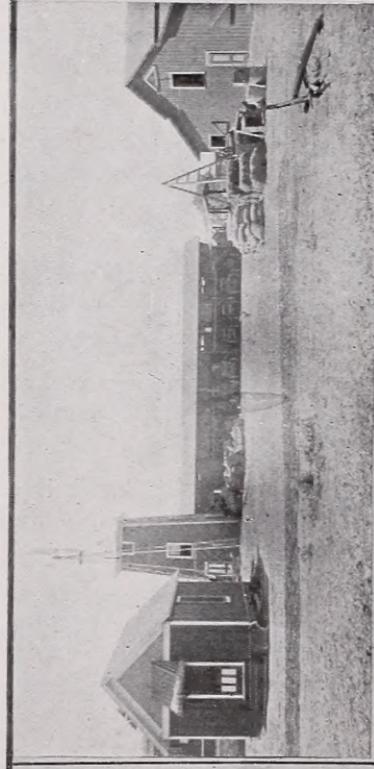
Soliciting a continuance of your valued favors, we remain,
Yours very truly,

R. M. TEAGUE,

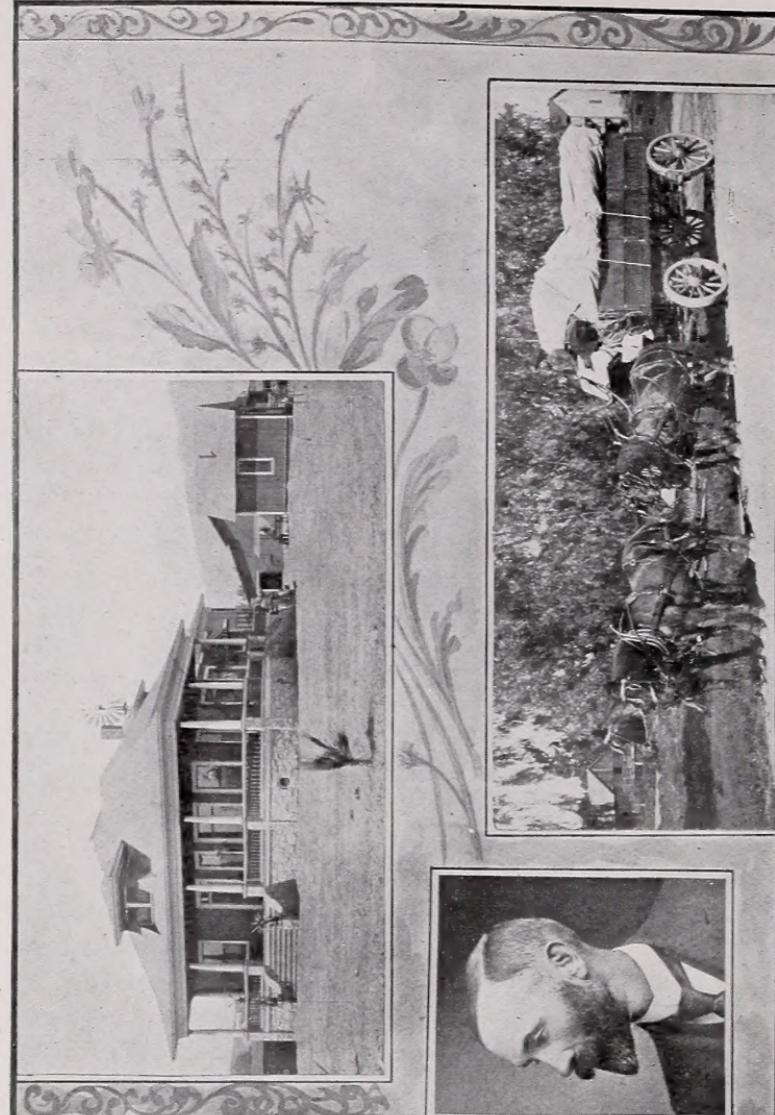
SAN DIMAS, CAL.

San Dimas, Cal., Nov. 1, 1901.

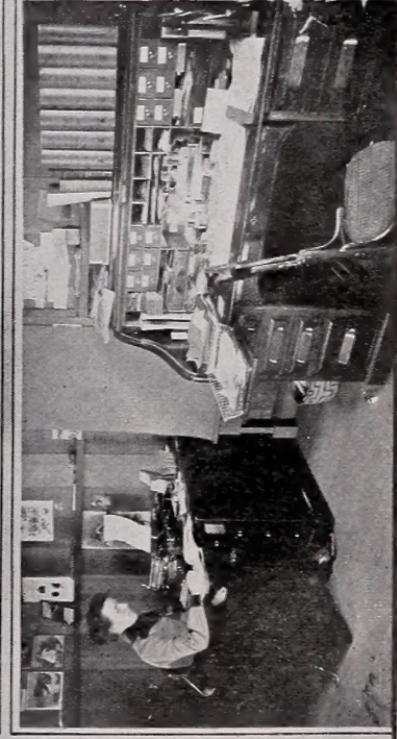
EXTRIOR VIEW OF OFFICE AND PACKING HOUSE.



RESIDENCE OF R. M. TEAGUE.



INTERIOR VIEW OF OFFICE.



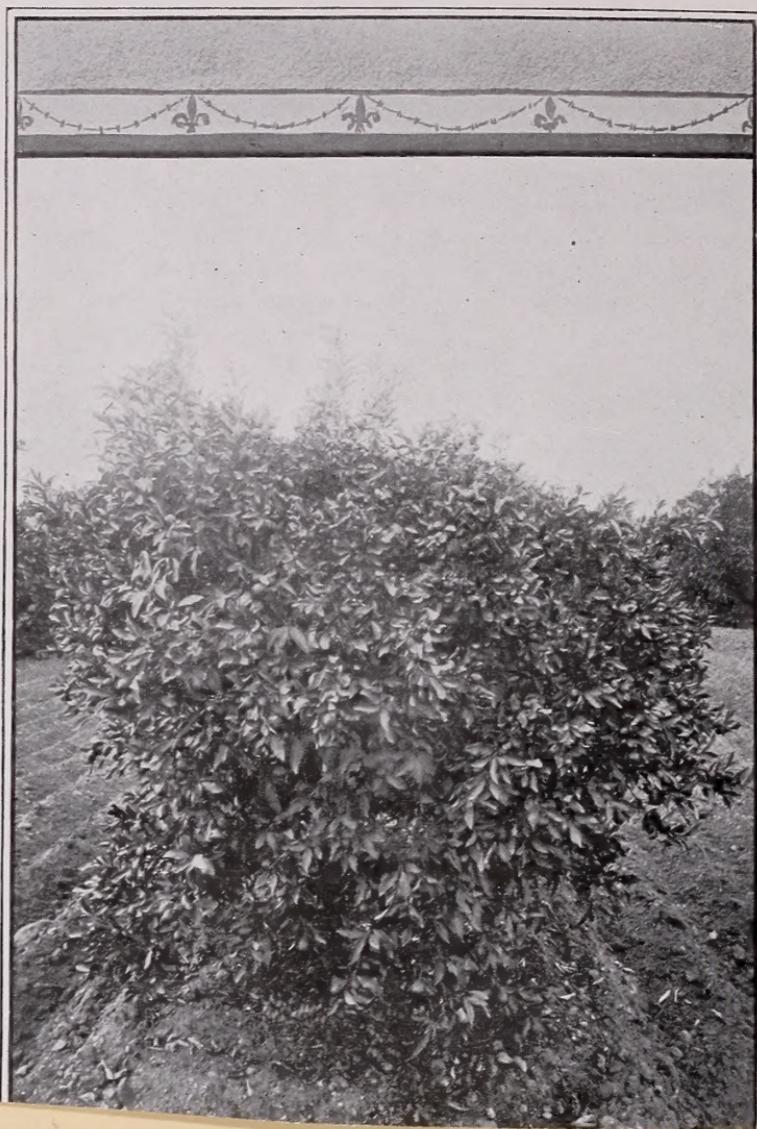
R. M. TEAGUE. TREES, OPEN ROOTS, PACED AND COVERED TO EXCLUDE AIR.

CULTURE OF THE CITRUS

It is hardly within the province of a catalogue to enter into a detailed description, both historically and otherwise, of citrus culture. For our purpose, only the commercial varieties are of direct interest. These are confined to Citrus Aurantium, the sweet or commercial orange the world over; Citrus nobilis, the Mandarin orange; Citrus Limonium, the true lemon; Citrus decumana, the Shaddock or Pomelo (grape fruit); and Citrus Cedra, from which the citron of commerce is produced. As applied to local conditions, citrus culture may be said to have taken its inception in California about 1800. Planting, however, was spasmodic until about 1840, when the first orchard was set out as a commercial proposition. From that date the progress was more rapid and pronounced, and by the seventies orchards began to dot the landscape throughout the interior valleys of Southern California as well as in the protected and warmer sections of the central and northern sections of the state. The event, however, which riveted the eyes of the fruit producers the world over to this section as an orange and lemon country was the fact that 20 varieties of oranges, which *competed against the world*, at the New Orleans World's Fair, (and to which was awarded the gold medal,) *were all produced in Southern California*. Naturally, this fact alone stimulated the industry immensely; but to it must be coupled another fact, viz., the introduction and exploitation as a Southern California product of the Washington Navel orange — the grandest fruit from every point of view of which citrus growers can boast. No one event, nor any one thing, has done so much to give orange culture its present commercial importance as the Washington Navel. Its significance in the evolution of the citrus fruit industry makes its history interesting.

San Dimas Nurseries

CITRUS TREES



In later years, the development of the industry has been one of healthy growth, based on a fuller knowledge of the tree's requirements in the matter of soils, climate and treatment. The annual output is something enormous and constantly increasing. The season just closed represented in volume some 30,000 carloads, while the coming crop will be equally as large.



FIG. 3. A MONEY-MAKING NAVEL GROVE.

As an index going to show the quality of the trees we are offering, and also what growth and development may reasonably be expected from trees of certain sizes and conditions, together with the degree of intensive culture they receive after being planted in orchard form, we give in this catalogue a series of half-tone engravings of orange and lemon orchards at different ages and under varying conditions, to which the intending planter's attention is called. They are here given because (1) showing the quality of our own trees and methods of business; (2) giving a clear conception to the intending planter of what he may reasonably anticipate in the way of growth and development from his investment; and (3) affording an idea whereby our customers can order more intelligently just the size and condition of tree they want. Those showing bearing orchards afford an idea of possible revenues and probable profits.

Making the growing of citrus trees an exclusive business—a specialty in this age of specialization—it stands to reason that we are in a position to offer superior citrus trees over the nurseries which produce everything from strawberry plants to forest trees, and from violets to orchard growth. Under these circumstances, it is hardly necessary to state that we are headquarters for orange and lemon trees.



FIG. 4. ONE OF THE OLDEST WASHINGTON NAVEL ORCHARDS, 26 YEARS FROM BUDDING.

OBJECT LESSONS

IN

CITRUS CULTURE



For the most part the views of orchards in all stages of growth, and under varying conditions of soils, culture and climate, shown in these pages are of groves in the immediate neighborhood and contiguous to the San Dimas Nurseries, a locality recognized for its superb fruits. The altitude will average from one thousand to fifteen hundred feet above sea level; the distance inland from the Coast line is about fifty miles and over; the contour of the land is slightly undulating, with a fine drainage from the Sierra Madre range of mountains to the West; the character of the soil is varying in sections, ranging from a heavy clayey soil to a sandy loam, and from a free and open gravelly soil to a rich granitic one. Under cultivation, it is invariably rendered friable by the action of the plow and cultivator, and is peculiarly well adapted to the growth and bearing of the orange and the lemon.

Fig. 1. For description of this fruit see pages 6 and 23.

Fig. 2. This illustration affords a striking example of what can be done by proper planting and cultivation, with second-size trees, three-eighths to one-half inch caliper, planted open roots in May of 1900 and photographed August, 1901. To the person with a comparatively small available capital with which to plant his or her land to the larger trees, this will afford encouragement and confidence to proceed to setting out the second size.

Fig. 3. The orange is not only king of fruits in Southern California, but actual money to the man owning a well-cared-for grove. The "counterfeit presentment" of this particular grove pictures to the life one of the famous properties of the country. It comprises 10 acres, was planted in 1890, on a rich decomposed granitic soil to second-size trees, and by reason of care and its fine situation has proven a pronounced success to its fortunate owner. For verification of this statement let us consult the record. In 1892, the crop sold for \$80.00; in 1893 for \$635.00; in 1894 for \$2,780.00; in 1895 for \$2,840.00; in 1896 for \$4,000.00; in 1897 for \$5,300.00; in 1898 for \$4,100.00 (this was the season of heavy wind storms when the trees lost much of their fruit); in 1899 for \$5,830.00; in 1900 for \$6,000.00. Is it any wonder that Southern California ships 30,000 carloads of citrus fruits annually?

Fig. 4. This grove was planted to seedling stock in orchard form, and the following year budded to Washington Navels. In the early days of citrus culture, this method was at times resorted to, because buds of the Navel were scarce as well as expensive, and planters sought to gain time by this practice. The buds were taken from the celebrated Tibbet's, or parent trees. This orchard has been in constant bearing, and is still a valuable possession. At the time the photograph was taken, the grove had attained an age of 26 years, and bids fair to yield the golden globes for another quarter of a century.

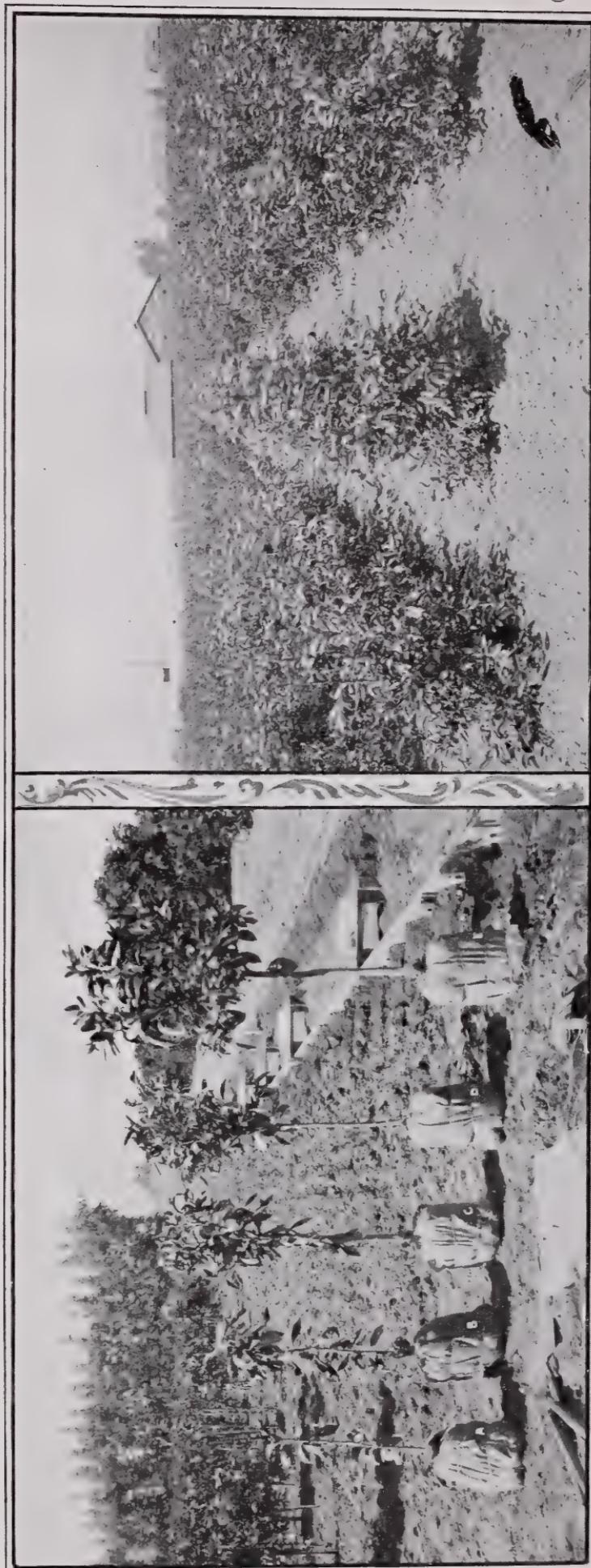


FIG. 5. COMMERCIAL SIZES OF CITRUS TREES.

FIG. 6. BLOCK OF 40,000 SEEDLINGS SECOND YEAR FROM PLANTING, UNBUDDED.

Fig. 5. This illustration shows our different sizes of trees ready for shipment. Commencing at the left of the picture *a* shows a one-year bud, caliper $\frac{3}{8}$ to $\frac{1}{2}$ inch; *b*, a one-year bud, caliper $\frac{1}{2}$ to $\frac{5}{8}$ inch; *c*, a one-year bud, caliper $\frac{5}{8}$ inch and all up; *d*, a two-year bud, caliper $\frac{5}{8}$ to $\frac{3}{4}$ inch; *e*, a two-year bud, caliper $\frac{3}{4}$ inch and all up. *A*, *B* and *C* are cut out with 40-pound balls; *D* and *E* are cut out with 60-pound balls. Long experience in growing citrus trees and planting citrus orchards has convinced us that it is always best to conserve and take up as much of the root growth of trees as possible. This is one of the reasons why our trees prove so universally satisfactory when planted. Of course, this often entails some additional expense in transportation, which is invariably more than offset by the fine growth of the tree after planting, as compared to those not so carefully handled in this respect.

Fig. 6. Without man's intervention many of our finest fruits would perish because of themselves not reproductive. Of this fact, the Washington Navel and other fine varieties of the orange are striking examples. This intervention or means of propagating these splendid fruits is brought about by budding onto foreign roots of the same family. In this view is shown a block of 40,000 seedling trees ready for budding, which comprises but one-seventh of the number of citrus trees we now have growing in our grounds. The reader's attention is called to the fine symmetrical and vigorous growth of the trees shown in the illustration — all evincing a root growth well calculated to produce, when budded, orchard trees of the finest quality and of large-bearing capacity.

Fig. 7. This illustration shows what can be done with a first-class one-year bud, caliper $\frac{5}{8}$ inch, balled with a 40-pound ball, planted August 15, 1900, and photographed in January, 1901. The tree immediately in the foreground shows 12 oranges. This orchard is planted to Thompson's Navels.

Fig. 8. The area adapted to profitable lemon culture, and the production of a superior fruit, is possibly not quite so extensive as that of the orange, nevertheless there are many situations in California in which the lemon finds congenial soils and climates. Our illustration affords an instance in point. This grove is situated along the thermal belt in the San Gabriel valley. The soil is of a gravelly formation, and the elevation about 1000 feet above sea level. The trees are planted 24 feet apart on the square, and number all told 180. Seven years from planting, the crop harvested from November 10, 1899, to November 10, 1900, inclusive, sold for \$1,030.86. The fruit was picked once each month, and delivered to the packing house in a green state.

Fig. 9. This is indeed a splendid view of a remarkable orchard, and exemplifies forcibly what intensive culture and liberal and intelligent fertilization and irrigation will do. Note the strong umbrageous growth of the tree, the manner of pruning, the density of foliage and prolificness of the fruit — all tending to show the lemon at its best. This grove is one of the sights of North Ontario, and has probably yielded larger crops of a larger money value than any other ten acres of lemons of which the writer has any knowledge. The variety is the Eureka.

Fig. 10. The commercial importance and solidarity of citrus-fruit culture is quite strongly indicated in the views shown in Fig.

San Dimas Nurseries

CITRUS TREES



FIG. 10. BUILDINGS OF THE SAN DIMAS CITRUS UNION AND LEMON ASSOCIATION.

10 of the packing and shipping buildings of the San Dimas Citrus Union and Lemon Association, forming an integral part of the Southern California Fruit Exchange. Other citrus fruit growing sections enjoy similar accommodations, all of which emphasize the strength of the industry.

Fig. 11. This view gives an idea of the early fruiting characteristics of the Naval orange when left to its own sweet will. The trees in the foreground contain upwards of 20 fruits, while one tree in the row, but not discernible in the picture, gave the unprecedented yield of 39 individual oranges. Specimens of this fruit were submitted to the experts at the Los Angeles Chamber of Commerce, who pronounced it of a remarkable fine quality.

Fig. 12. In the growing of first-class nursery trees, care must be exercised in training the bud after the seedling tops are cut off. This we do by systematically removing all suckers and carefully training the bud to a stake by persistent tying, in order to induce a straight and symmetrical growth. At the proper stage, the bud is cut back, as shown in the illustration, to produce a branched top. The view shown on page 34 (Fig. 13) gives a clear idea of our trees after the head is properly developed.

Fig. 14. Nine months is but a short period in the growth of an orange tree, nevertheless in the case of this grove of 2600 Navel trees it demonstrates what our trees will do. This grove was planted in April, 1900, with trees of $\frac{1}{2}$ inch caliper balled, and photographed in January, 1901. The vegetation shown under and about the trees in the half-tone engraving is green barley, sown for a green manure for turning under with a plow. This same orchard is again pictured in Fig. 16, photographed in August, 1901, showing a growth which must be considered as phenomenal in that short intervening space of time.

Fig. 15. Not unlike the trees pictured in the opposite view, this shows Washington Navel trees planted in May of 1900, to two-year buds, $\frac{3}{4}$ inch caliper and up, balled with 60 pounds of soil, and photographed in January, 1901. The growth covering the ground in the orchard represents field peas, sown for green manuring.

Fig. 17. This picture shows money. It represents a four-year-old Navel grove yielding a packed box of fruit per tree, a record to be proud of, and one considerably above the average. The situation, the soil and the care have all been exceptionally favorable, which give it a great future as a splendid investment. It demonstrates beyond a doubt that when intelligently applied citrus culture is a safe and profitable investment, and that trees become a source of income after being set in orchard three years.

Fig. 18. Among the varieties of orange destined to a popularity, based on purely commercial considerations, must be mentioned the Valencia Late. Ripening when the market is clear, and ranking next to the Navel in quality, it must always be in good demand. Many of the best-paying groves are planted to this variety. The illustration represents a fine eight-year-old Valencia Late grove at San Dimas, which produced \$7 per tree in 1900.

Fig. 19. For the information of growers contemplating rebudding orchard trees to other varieties of fruits, we show a lemon tree rebudded to Thomson's Improved Navel, April 10, 1899, and photographed in January of 1901. Those not familiar with the



FIG. 9. NORTH ONTARIO'S FAMOUS 10-ACRE LEMON GROVE.

subject are quite apt to believe that rebudding and subsequent fruiting is a matter of slow growth, yet here is a case where a lemon tree has been converted into an orange tree, and brought into bearing in less than two years. Needless to add, that in the light of these results, many of the older orchards hereabouts have been rebudded to more desirable varieties. So pronounced is this practice that the original groves are being supplanted by Washington Navel and other more desirable sorts. It only again illustrates the law of the survival of the fittest—like in other lines of production, it is only the best which is capable of holding its own in the markets of the world.

Fig. 20. The pruning of fruit trees is a controversial subject, and many growers possess many opinions and methods, each claiming his the best. The illustration of a Villa Franca lemon tree affords an example of the method generally pursued in the orchards of this establishment. Its objects are (1) to produce plenty of fruit-bearing wood; (2) to create an umbrageous head, affording shade and protection from the burning rays of a Southern California sun; (3) it induces a beautiful and regular crop of fruit, as indicated in the picture.

Fig. 21. The prolificness of the Pomelo is proverbial, and among the numerous sorts none is more so than Marsh's Seedless. It is conceded by both fruit dealers and shippers, as well as the epicure, that this is a splendid variety, by reason of its being practically seedless, of uniform size, good shipping qualities, fine flavor and regular bearer. The truth of its productiveness is amply proven by the half-tone engraving which shows a tree but four years from the bud.

Figs. 22 and 23 depict the general appearance, character, habit of growth, and productiveness of well-cared-for and typical Washington Navel orange groves in the heart of the citrus belt of Southern California.

Fig. 23. The glory of the Washington Navel orange, as we know it in California, is here strikingly typified. The illustration is indeed one of nature's prime productions, being photographed direct from the tree as the branches and fruit appear. The finely-shaped fruit, its superb size, prolificness and general character and habit of tree is here shown as it is usually seen in the well-cared-for orchards in the San Gabriel valley. As is well known, the orange shipments at the beginning of the season consist chiefly of Washington Navels, over one-half of the output being of this variety, which continues in the market until late in the spring months. The Navel is indeed the king of oranges whose supremacy there is none to dispute; it is also shown in all its glory of gold and green in the half-tone illustration.

Under favorable conditions the orange is a very free bearing tree. Wallace mentions a tree in St. Michaels that bore 20,000 fruits in one crop. The longevity of the tree is not less remarkable. At Versailles one tree is still growing which was sown in 1421, and the famous tree, now upwards of 35 feet in height, in the convent at St. Sabina, at Rome, is said to be more than 600 years old. Some commentators suppose that the "Apples of Gold" were oranges; but there does not seem to be any definite evidence that the orange was cultivated in Palestine in the time of Solomon. More than 700 years later Theophratus, however, describes the citron as occurring in northern Persia (Media), and as being cultivated by the Jewish nation in Syria, while under Roman dominion.



Fig. 7. A THOMSON'S NAVEL ORANGE GROVE FIVE MONTHS FROM PLANTING.
Fig. 8. EUREKA LEMON GROVE SEVEN YEARS FROM PLANTING.

TO PURCHASERS

"Be sure you are right, then go ahead."

HOW TO ORDER.—State specifically the size and variety of trees you want, and also give a few general hints as to your soil and climatic conditions. From unknown parties we demand a remittance or deposit of 50 per cent of order, or good references. Send money by bank draft, postoffice money or express order, or registered letter.

LOCATION.—The land upon which our nursery is situated is conceded to be the best for growing citrus nursery stock, producing a fine grade of tree, with a root system of great vigor, making transplanting safe and easy.

QUALITY OF STOCK.—All of our trees are grown to stakes, and are straight and thrifty, budded at the ground and well rooted. Good stock is the foundation of success. He who plants an orange or a lemon grove plants for generations; hence, in choosing stock be careful to get only the best obtainable.

GUARANTEEING TREES.—We guarantee all trees shipped from our nurseries to be as represented. We personally attend to the budding of all our trees, and use the utmost care to insure them true to name.

PACKING.—We pack all trees in the best possible manner, in bales or boxes, according to size of order and distance of shipment. Trees can be sent with safety to any part of the United States or foreign countries. We make a small charge for packing, just sufficient to defray cost. Sample trees furnished intending buyers.

TRANSPORTATION FACILITIES.—Our transportation facilities are excellent, being midway between the Southern Pacific and Santa Fe railways; hence we can ship via either road.

SHIPPING INSTRUCTIONS.—Please furnish explicit directions for shipping and by what route. In the absence of any instructions we ship according to our best judgment, but in no case do we assume any responsibility for condition or safe delivery of trees after same have been properly packed and delivered to transportation companies.

PRICES.—The matter of prices depends somewhat on size of tree, quality of stock, variety of fruit, etc. We sell according to condition of stock and the customer's wants. We grade our citrus stock by caliper, measurement being made one inch above the bud, and thus are able to offer any size that is required. We have buds one, two and three years old. We have citrus trees of all grades and at all prices, and are able to meet competition from whatever source.

PLANTING.—This may be done from February to August, in very warm and sheltered localities. Early planting generally gives the best results. Trees are planted balled or with bare roots, according to the ideas of the buyer. The tree should be set



FIG. 17. FOUR-YEAR-OLD WASHINGTON NAVEL GROVE

FIG. 18. VALENCIA LATE ORANGE GROVE IN FULL BEARING

slightly deeper than it stood in the nursery. Holes should be sufficiently large to admit of the roots being spread out in their natural position. Do not let the earth turn them down in a mass around the tap root. Cut off all broken or bruised roots. Top soil is best for filling in. The soil should be worked in well around the roots and irrigated immediately. Distribution of trees to the holes in advance of actual setting is a pernicious practice, as the roots quickly become dry. Keep them constantly covered with moist packing.

AFTER CARE.—No tree responds so quickly to intensive culture as the orange or lemon, and hence careful and frequent cultivation will be found essential to profitable production. Indeed, the soil should be thoroughly communited, friable as an ash heap. See to it that the trunks of the trees are well protected from the burning rays of the sun. Yucca tree protectors, burlap, or even heavy paper well tied will serve the purpose. We recommend the first mentioned. Having attended to these essentials, see to it that the orchard is well and judiciously irrigated at regular intervals. Thorough culture and careful watering will insure success, as citrus trees require but little pruning. The tree should be trained to form a symmetrical head. To do this, cut out all the dead wood, interfering branches, and suckers. Lemons require more severe cutting than the orange or grape-fruit; the treatment given deciduous trees, but less severe, will be about correct. Frost is an element of some risk in the shipping of citrus trees. Being situated in the thermal belt of the San Gabriel valley, and making citrus trees an exclusive business, we feel sure of the condition of our stock at time of shipment; nevertheless, we desire to call attention to the fact that in accepting orders previous to time of delivery we cannot be held liable for the delivery of such trees should they be damaged or destroyed by the elements.

SOILS AND CLIMATE.—The cultivation of the orange and lemon covers all tropical and sub-tropical regions, and in so far as general characteristics are concerned, the many divers varieties under different names in different localities, are much alike in habit of growth and tree. In spite of this fact, however, Southern California has become distinctively the home of certain kinds which are peculiarly adapted to her soils and climates. In selection of buds we use the utmost care, and never take buds removed more than a generation or so from the original or parent stock. Thus our Washington Navel buds are all taken from original orchards budded directly from the parent trees, which are still bearing bounteous crops in Riverside on the Tibbets place. These sorts have become standard in the markets of the United States, and in the line of their importance are mentioned in the following list, which comprises the varieties of trees we grow and carry always on hand:

THE ORANGE.

WASHINGTON NAVEL.—This is the most valuable orange known. Tree of moderate growth with small thorns. Full, well-rounded top; dark glossy foliage. Blooms heavy and in California is one of the best and most regular bearers. Bears young, generally in the third year from planting, and sometimes in second. Fruit large to very large; skin generally smooth and thick; of full orange color, and peculiarly marked at bloom end, where a small

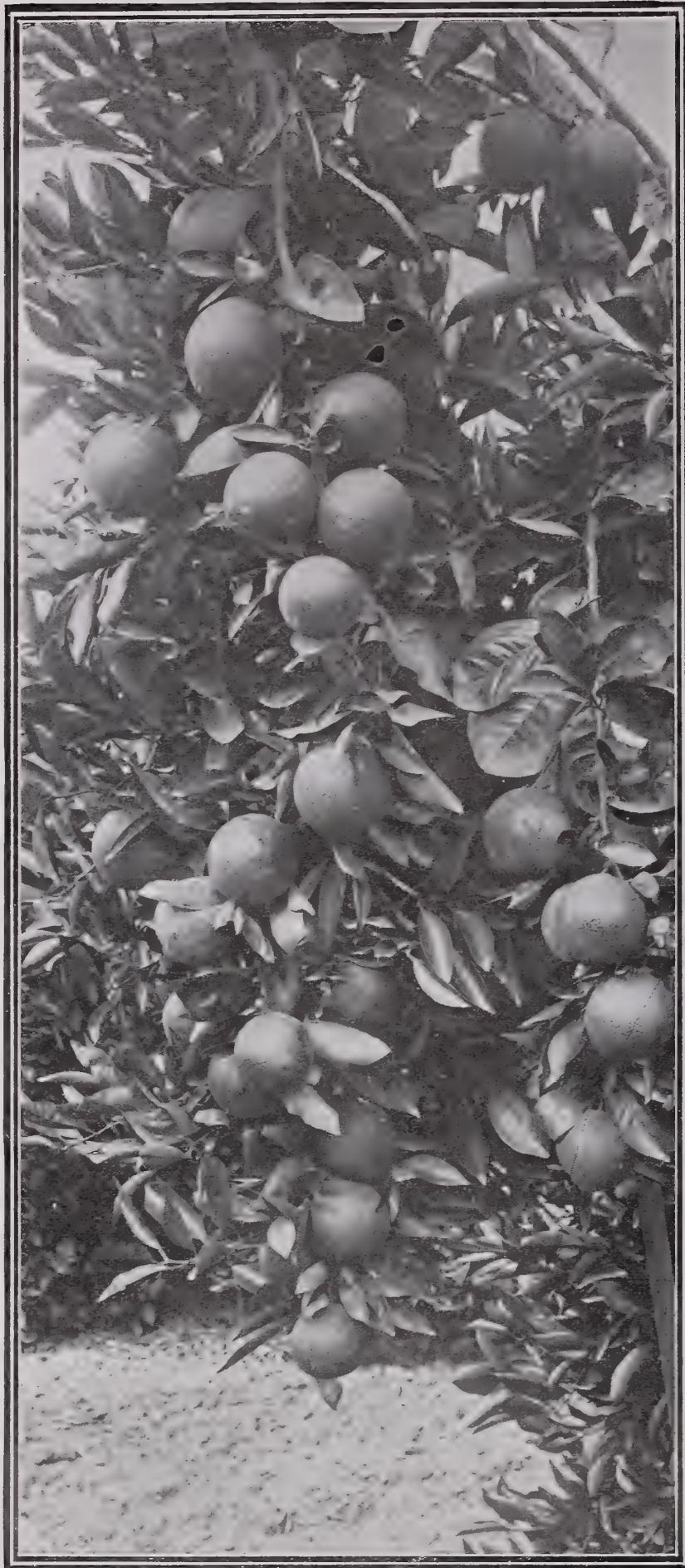


FIG. 23. THE WASHINGTON NAVEL IN ALL ITS GLORY.

irregular secondary orange is formed, imbedded within, sometimes protruding from, the segments from the fruit. The orange is seedless, flesh crisp and sweet, and flavored with some bewitching secret of its own — no other taste to describe it by. Season early. Shipping qualities of the best.

THOMSON'S IMPROVED NAVEL.— In character and habit closely allied to the Washington Navel. Fruit of medium size, smooth and thin-skinned, good flavor, and comes into bearing early. Those desiring a thin-skinned, early Navel for the holiday trade will not go wrong in selecting this fruit. By this is not meant that its season is limited to the holidays, quite to the contrary, its keeping qualities are equal to those of the Washington Navel. Its splendid appearance, fine texture of peel, superb color and good eating qualities render it an especial favorite among consumers during the Christmas and New Year festivities, when it invariably commands the market at good prices.

VALENCIA LATE.—Tree of very fine and vigorous growth; light thorns. Early in bearing and prolific. Fruit of medium size, oval, solid, heavy. Light color. Skin rather thin and of strong texture. Flesh of deep and very rich color, grain fine, firm and crisp; abundant juice, excellent flavor, the quality that suits the hot months. Season latest, being prime after other varieties become stale, and maintaining fine quality through summer and autumn. Of best shipping quality and reaches the market when there are no other oranges to compete.

RUBY BLOOD.—Medium size, nearly round; skin thin but very tough; pulp melting, rich, juicy. As the fruit ripens it usually becomes streaked or mottled with blood red, often the entire pulp gets ruby red, showing through the peel in a reddish blush on the outside. One of the best blood oranges. The tree is vigorous, nearly thornless, and a regular bearer.

MEDITERRANEAN SWEET.—Thornless, low, spreading tree; very productive. Fruit oval, medium to large; rich orange color; inclining to thick skin. Season middle to late. Shipping quality of the best.

PAPER RIND ST. MICHAEL.—Tree vigorous and of excellent habit; light thorns; heavy bearer. Fruit small, round, very solid and heavy. Skin thin; smooth and of a very fine texture; color pale, almost lemon; membranes thin; grain fine; most abundant juice; sprightly, excellent flavor. A general favorite. Season middle. Shipping quality best.

MALTA BLOOD.—Ripens just as the Navel is getting late. Tree of slow but persistent, upright growth, and disposed to bear in clusters on terminals; a heavy bearer; fruit oval, seedless, with peculiar refreshing acid flavor; pulp usually splashed with crimson streaks, sometimes almost solid crimson, though when grown in shade it is often but slightly colored.

KUMQUAT OR KIN-KAN.—This unique and curious member of the citrus family, commonly called Kumquat in this country, is a native of Japan, where it is known as Kin-Kan, which means good orange. Kumquat is Chinese for the same meaning. It bears in great profusion a small and very handsome, deep yellow fruit. There are two kinds, alike in tree and differing only in size



FIG. 21. MARSH'S SEEDLESS POMELO.

FIG. 20. A WELL DEVELOPED LEMON TREE.

FIG. 19. LEMON TREE RE-BUDDED TO NAVELS.

and shape of the fruit. The Marumi bears a round fruit, from three-quarters of an inch to an inch in diameter; the Nagami, an oblong fruit somewhat larger. The latter is the kind commonly seen in this country, is rather more desirable on account of the large size of its fruits, and is the one we offer. The whole fruit, rind and all, is eaten, and people become very fond of them. The sweet rind and agreeably acid pulp make a piquant combination relished by most palates. Preserved in sugar or crystallized the Kumquat, wherever it is known, is deservedly popular.

DANCY'S TANGERINE.—Unlike most of its family this bears the broad leaf, much like the common orange. Larger and finer than Tangerines; deep reddish color; skin free from flesh, and segments cleaving free, as in other "kid-glove" oranges. Meets a special and limited demand—often at the very highest prices. The tree makes a beautiful appearance with its small, intensely-colored fruits. The standard variety of its class.

SATSUMA (*Oonshiu, Kii Seedless*).—Medium, flattened; the color is not red, like the King and Tangerine, but a deeper yellow than the Mandarin; rind and segments part freely; flesh fine-grained, tender, juicy, sweet and delicious; entirely seedless; one of the earliest sorts known; fruit ripens as early as November. Tree thornless and bears young.

THE LEMON.

EUREKA.—Tree nearly thornless, of rapid growth, and prolific bearer. Fruit of the best quality; a general favorite.

VILLA FRANCA.—A strong growing variety; thornless, or nearly so; fruit oblong, juicy and nearly seedless. Sweet rind. Standard.

LISBON.—Tree of largest growth; thorny. Size of fruit medium. Sets well in the limbs. Fruit oblong with prominent point; color bright; rind of medium thickness and of soft excellent texture, giving with the strong membranes high keeping and shipping qualities. Abundant juice; acid very strong and flavor fine. A standard variety.

LIMES (*Mexican*).—The lime should be more extensively planted. It makes a splendid hedge, or the plants can be grown in orchard form. The lime juice of commerce is the product of this fruit. The Mexican is a variety extensively grown in Old Mexico.

THE POMELO OR GRAPE FRUIT.

MARSH SEEDLESS.—Medium size (will pack 54 to 62 to box.) Thin rind, with about half the usual bitter. It is a true grape fruit and not a hybrid, with all the characteristics of the common varieties, with the exception of being almost absolutely seedless. Sometimes you will find a fruit containing three or four shells of seeds, but as a rule it has none at all. With the absence of seeds, the amount of juice increases, the flavor improves and the fruit retains its noted qualities, and the pulp or meat is dark and rich. In serving this fruit you are not required to remove from 80 to 90 seeds, as it is necessary with our common grape fruit, but is ready for the table when cut in halves. The fruit is known to be a late keeper. The fact of its not having

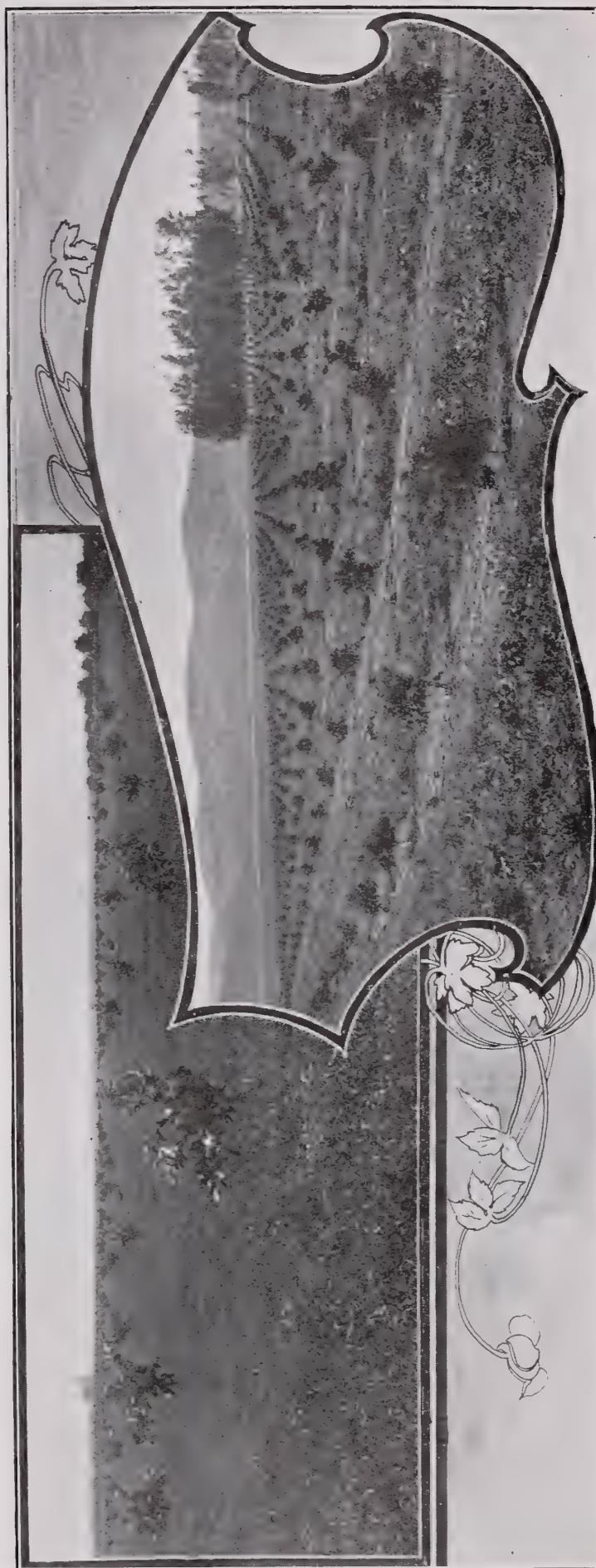


FIG. 14. NAVEL ORANGE GROVE NINE MONTHS FROM PLANTING.

FIG. 15. NAVEL ORANGE GROVE EIGHT MONTHS FROM PLANTING.

seed, that germinate when left late on trees or in storage, increases its keeping qualities to a great extent and is another factor greatly in its favor. A three-year-old bud will bear all the fruit it should hold at that age.

TRIUMPH.—Medium; peel smooth, clear, thin and fine grained; less "rag" than in most grape fruits, and fewer seeds; very heavy; juicy and well flavored. There is no bitter in the juice, flesh or membranes surrounding the cells and dividing the segments, and very little in the white inner lining of the peel. Tree bears young and is prolific. One of the best of the improved varieties.

IMPERIAL.—Something similar to the Triumph. It is pronounced by experts to be the best variety yet tested.

IMPROVED.—An improved Florida seedling of good merit. Tree thornless or about so, bears young



FIG. 16. SAME ORCHARD AS FIG. 14, FIVE MONTHS LATER.

THE CITRON.

CITRUS MEDICA CEDRA (*The Citron*).—This is the true citron of commerce, from which an essential oil is obtained. The rind, when cured, is known as "citron rind," or "succade."

IMPORTANT; NOTE CAREFULLY.—In its widest sense the foregoing sorts comprise the standard commercial varieties usually planted in the citrus-growing sections of this State, each of which possesses certain advantages and characteristics peculiar to it. In the selection of one or more sorts the intending planter will only be consulting his own interests by giving each variety due consideration, to the end that when his orchard comes into full bearing it will in the largest measure give him profitable returns. As already intimated among these considerations should first be the adaptability of his location and situation to citrus fruit culture; next as to the particular markets and seasons when he can reasonably expect good prices for his product; and finally the treatment each will require to bring forth maximum crops of A No. 1 merchantable fruit.

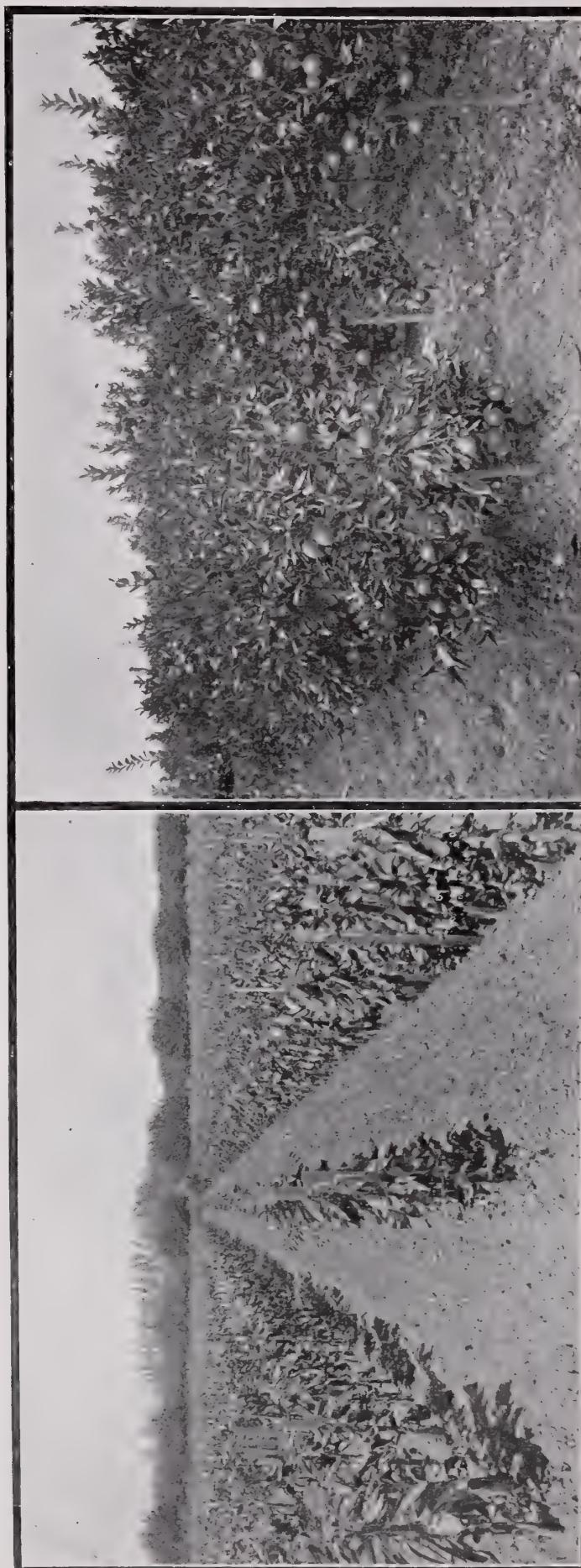


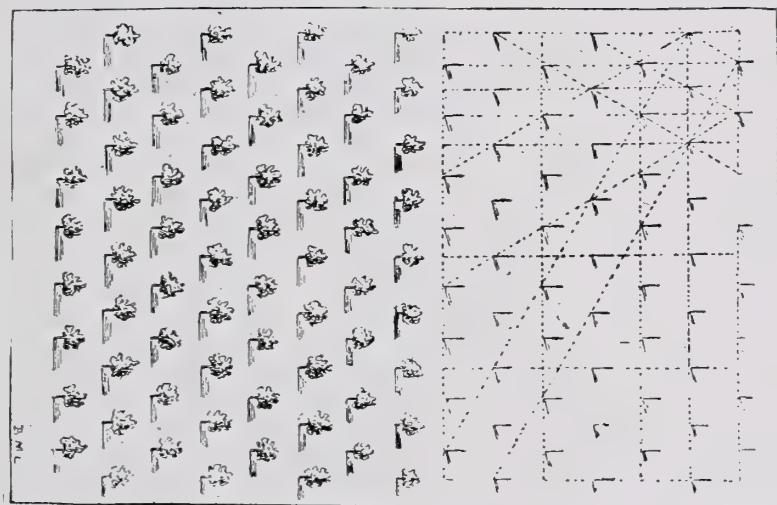
FIG. 11. BUDDED TREES "TOPPED OFF" TO FORCE "HEADING OUT."

FIG. 12. THOMSON'S NAVEL FRUITING THREE YEARS FROM BUD.

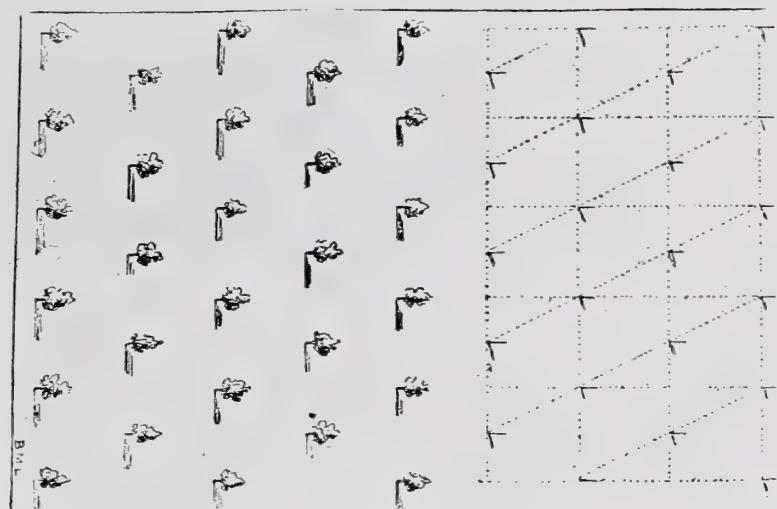
HEXAGONAL, OR SEPTUPLE, SYSTEM.—In this system the trees are equilateral (equally distant from each other) and more completely fill the space than any other system can. Six trees form a hexagon and inclose a seventh. The lines in the figure indicate the method of laying out the orchard. By the hexagonal system, at 20 feet apart, 126 trees are planted to an acre.

TRIANGULAR, OR ALTERNATE, SYSTEM.—In laying out an orchard by this system, the lines are run forming a square, as in the square system; a line is then run diagonally across, and a tree planted alternately, forming a triangle. The advantage in this system is that the trees are given more space, and can be planted closer together without crowding.

HEXAGONAL, OR SEPTUPLE, SYSTEM.



TRIANGULAR, OR ALTERNATE, SYSTEM.



The following table will show the number of trees to the acre by the square, quincunx, and hexagonal, or septuple, systems:

Distance apart.	Square.	Hexagonal or Septuple.	Quincunx.
10 feet.....	436	500	831
12 feet.....	303	347	571
14 feet.....	222	255	415
16 feet.....	170	195	313
18 feet.....	134	154	247
20 feet.....	108	126	199
22 feet.....	90	103	173
24 feet.....	76	86	137
30 feet.....	48	56	83

NOTE.—In giving the distances of trees of the quincunx, the fifth or central tree is not taken into account.



FIG. 22. NAVEL GROVE SEVEN YEARS OLD.

FIG. 23. NAVEL GROVE FIVE YEARS OLD.

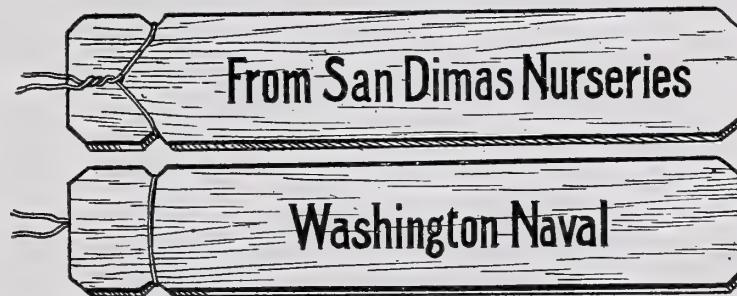
For any distance not given in the above data calculate the number of trees to the acre by the square system, and add fifteen per cent. This will give the number if planted septuple.

COST OF BRINGING AN ORCHARD INTO BEARING.— So much depends upon local conditions — soil, climate, water, lay of the land, whether the owner and his family are to do the work, or it is to be done with hired labor — that any estimates are quite apt to not apply in every detail. Broadly, however, the cost of preparing and grading the land and planting the trees, will average from \$15.00 to \$25.00 per acre; this includes cultivation for the first year. After that, however, cost of cultivation will increase, and be about, according to the amount of labor expended, \$15.00 to \$25.00 per acre up to the fourth year. If the orchard has been well cared for, it should pay expenses the third year from planting; by the fourth year it should produce about a box of fruit to the tree; the fifth, one and one-half to two boxes to the tree; and from that time on increase in productiveness and profit to its owner in a corresponding line to the care and attention expended on it.

The volume of irrigating water is also subject to some fluctuation governed by local conditions. Usually the amount would be about one inch to 10 acres for the first two seasons; one and a-half inches for the two following seasons; two inches for the fifth and sixth years; after that period an inch to every four acres will be found to be about the right quantity to use on an orchard in full bearing.

The expense of caring for an orchard obviously hinges on local contingencies. If in full bearing, allowing for cost of water and cost of labor in applying same, together with the expense of cultivation, would average anywhere from \$25.00 to \$60.00 per acre. Much depends upon the owner's resources, environment, and method of carrying on the business.

TRUE TO NAME.— Our trees are all budded from bearing trees and every precaution exercised to have them true to name, still with all our caution, mistakes are liable to be made, but we hold ourselves in readiness, on proper proof, to replace all stock which may prove untrue to label, free of charge; or to refund the amount paid. It is mutually understood and agreed to between purchasers and ourselves, however, that our guarantee of genuineness shall, in no case, make us liable for any sum greater than that originally paid us for said trees, that prove untrue to name.



CAUTION.— It has come to us that unprincipled growers are disposing of citrus trees as coming from and being grown by the San Dimas Nurseries. To avoid deception in this regard and to protect our patrons' interests, we label every kind and sort of citrus tree with our individual label,— fac similes of right and reverse sides appear above. All trees coming from our establishment bear this label as a guarantee of their genuineness. See that your purchases contain it; otherwise your trees are not the product of this establishment.

R. M. TEAGUE.

BOOKING ORDERS AHEAD.—The demand for trees promises to be unusually active, hence it is advisable for intending purchasers to place their orders early, and thus insure the pick of the stock and be assured of having their wants satisfied. We book orders ahead, and take every precaution to protect our customers, both in the way of reserving the trees as well as in the matter of quality. Write us for prices and particulars.

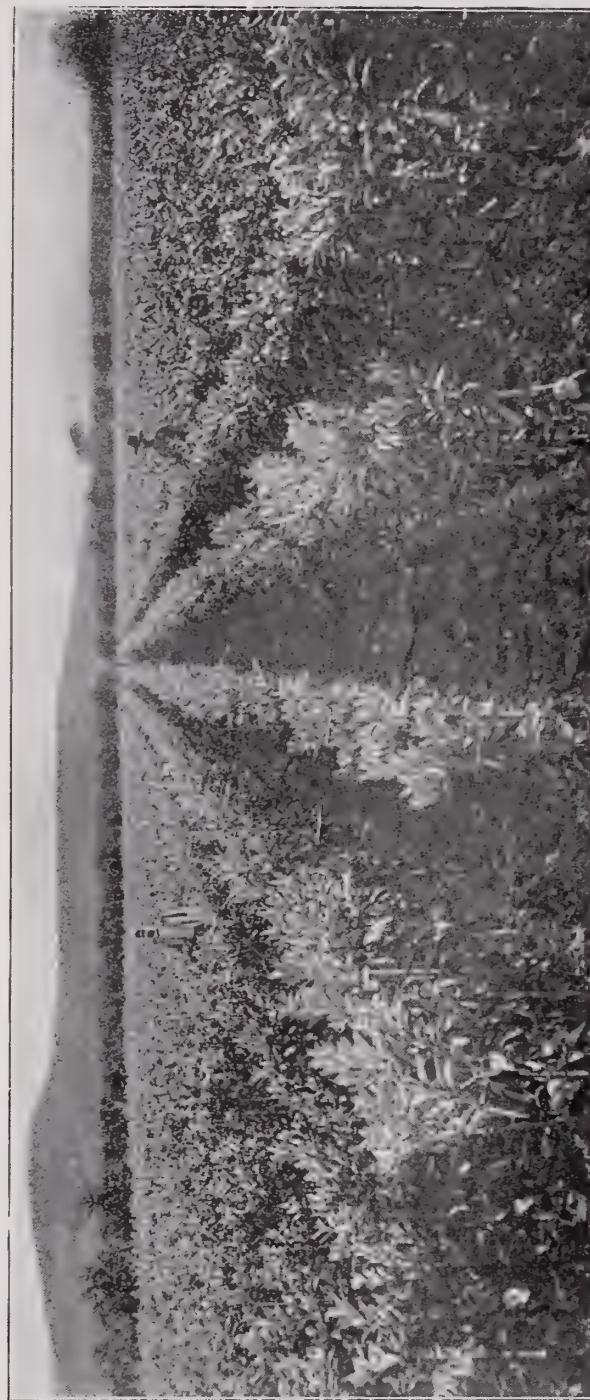


FIG. 13. SHOWING TREES AFTER THE HEADS ARE FULLY DEVELOPED.

OUR EXPORT TRADE.—Planters in Mexico, Central and South America, the Philippines, Cuba, and other citrus fruit countries should bear in mind that we make a specialty of exporting orange and lemon trees; and also, that we are in a position to make it to their interests to place orders with us. Our export trade is indeed a growing one, orders of considerable magnitude having been received from Mexico and South America. In the interest of this trade we have published an abridged edition of this catalogue in the Spanish language, copies of which we shall be pleased to send to address or addresses upon application.

PLANTERS SAY OUR TREES GROW

As already said, the past is our best endorsement for the future. We practice the axiom that to possess patronage and the confidence of the public you must first deserve it. Without for a moment forgetting that truth, we desire right here to submit a few of the many testimonials it has been our pleasure to receive at the hands of patrons:

FORESTVILLE, Cal., October 18, 1901.

Mr. R. M. Teague, San Dimas, Cal.

DEAR SIR:—Please quote trade prices on orange and lemon stock and oblige. The trees I received of you last year were the best I ever bought from any nurseries. Yours truly,

T. J. TRUE.

SAN FRANCISCO, Cal., February 15, 1901.

Mr. R. M. Teague, San Dimas, Cal.

DEAR SIR:—Please find enclosed check for bill rendered. Your trees have given our customers excellent satisfaction, and we thank you for the class of stock furnished us.

Very truly yours, TRUMBELL & BEEBE.

CLAREMONT, Cal., January 7, 1901.

Mr. R. M. Teague, San Dimas, Cal.

DEAR SIR:—You will recollect my getting some 135 Washington Navel, two-year buds, in July last. Well, they have done splendidly. I have contracted for another lot just like them, and I write this to say that I do not at all object to a three-year bud, so if you can furnish trees at this age, kindly do so.

Yours truly, GEO. J. MITCHELL.

POMONA, Cal., December 20, 1900.

Mr. R. M. Teague, San Dimas, Cal.

DEAR SIR:—The 1,600 one-year-old Thomson's Improved Navel, balled, that we got of you last season have done splendidly, and I am more than pleased with them. Although it was late in the season when I got them — sometime in July, I think — I did not loose a single tree, except where some accident happened to the tree by being broken off with the cultivator, etc. I shall want a few of the very best size you have for resetting these another season, so they will all be uniform.

You will kindly accept my thanks for the care and good judgment you show in handling and preparing these trees for transplanting.

Yours very respectfully,
G. A. LATHROP,
Cashier National Bank of Pomona.

POMONA, Cal., July 14, 1900.

R. M. Teague, San Dimas, Cal.

DEAR SIR:—Please find enclosed check for bill of orange trees. The trees were very nice in every way, and well balled. Such trees so well handled should give you a ready market.

Yours truly, D. L. DAVENPORT.

SANTA BARBARA, Cal., October 7, 1900.

Mr. R. M. Teague, San Dimas, Cal.

DEAR SIR:—The selected orange trees you furnished me last spring are regular beauties, literally covered with blossoms, and have set also a good many fruits. I am going to ship them east in a few days. Yours very truly, DR. F. FRANCESCHI.

TUSTIN, Cal., March 9, 1899.

R. M. Teague, San Dimas, Cal.

DEAR SIR:—Trees arrived yesterday in good shape. Accept my thanks for the two extra trees.

Yours truly,
H. W. KEIM.

NORTH POMONA, Cal., March 30, 1900.

Mr. R. M. Teague, San Dimas, Cal.

DEAR SIR:—Replying to your inquiry, the orange trees we bought of you last year were thrifty and vigorous; they have made a good growth and are satisfactory.

Respectfully,

FRANK L. PALMER,
Manager the Seth Richards Orange Grove.

PALO ALTO, Cal., March 7, 1899.

Mr. R. M. Teague, San Dimas, Cal.

DEAR SIR: — I have received the trees in fine condition, and must compliment you on the style of your work in preparing your trees for shipment, as well as upon the beauty and quality of the trees themselves.

Please send me an additional order of 8 Washington Navel, 8 Thomson's Improved Navel, 2 Lemons, 2 Pomelo, or Grape Fruit.

Find order for bill rendered.

Yours truly,

J. S. BUTLER.

PACIFIC BEACH, Cal., March 14, 1900.

Mr. R. M. Teague, San Dimas, Cal.

DEAR SIR: — We received the trees safely last week and lost no time in setting them out. We were very much pleased with the trees, the fine roots which they had and the splendid way in which they were packed and shipped — they came in good shape.

Please accept many thanks for the grape fruit trees; we replaced a sickly lemon with one of them and put the other in our door yard.

Will take pleasure in recommending you to our friends and neighbors. Yours respectfully, O. L. GRIDLEY.

POMONA, Cal., April 9, 1899.

Mr. R. M. Teague, San Dimas, Cal.

DEAR SIR: — In response to your inquiry I will state that all of the trees that we received from you during the several years past have been of good quality and have made splendid growth. During all of the twelve years that we have been planting more or less on our ranches, we have never had stock that gave better satisfaction nor made better growth. Yours truly,

P. J. DREHER,
Manager San Antonio Fruit Exchange.

LORDSBURG, Cal., April 4, 1900.

Mr. R. M. Teague, San Dimas, Cal.

DEAR SIR: — We bought several hundred trees from you in spring of 1899 which we planted, and I will say that we were very much pleased with them. They made good growth and were satisfactory in every way. Yours truly,

IRWIN F. DANIELS,
Manager Evergreen Ranch.

TUSTIN, Cal., March 8, 1899.

Mr. R. M. Teague, San Dimas, Cal.

DEAR SIR: — I received the trees today; they are all right. Please accept many thanks for the two extras.

Enclosed find draft for \$8.50 to cover balance.

Yours truly, C. F. MATHEWS.

POMONA, Cal., April 4, 1900.

Mr. R. M. Teague, San Dimas, Cal.

DEAR SIR: — We have purchased our trees from the San Dimas Nurseries for the past two seasons, and believe they are as good in every respect as can be had. Yours truly,

GEO. R. TYLER,
Foreman Pomona Ranch.

GLENWOOD, Fla., June 20, 1896.

Mr. R. M. Teague, San Dimas, Cal.

DEAR SIR: — The 200 orange trees you shipped me May 25, 1894, arrived here June 14 in fine condition and all are growing nicely. Yours truly, E. W. POMEROY.

POMONA, Cal., April 2, 1900.

Mr. R. M. Teague, San Dimas, Cal.

DEAR SIR: — I have purchased a great many trees from you and have always found them true to name, and well-grown, thrifty stock. Yours truly, JOHN E. PACKARD.

MY TREES GROW
and
ARE TRUE TO NAME



THE OONSHIU

R·M·TEAGUE
SAN DIMAS NURSERIES
SAN DIMAS, CAL.